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=> FILE REG
FILE 'REGISTRY' ENTERED AT 17:16:58 ON 30 DEC 2008
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=> D HIS

     FILE 'LREGISTRY' ENTERED AT 16:54:44 ON 30 DEC 2008
L1             STR

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L2           28 S L1
L3          468 S L1 FUL
                SAV L3 WEI268/A

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L4             STR

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L9          436 S L3 NOT L8

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L11      263561 S (BATTERY OR BATTERIES OR (ELECTROCHEM? OR ELECTROLY? OR
L12          36 S L8
L13         159 S L9
L14           1 S (L10 OR L11 OR 52/SC,SX OR 72/SC,SX) AND L12
L15           8 S (L10 OR L11 OR 52/SC,SX OR 72/SC,SX) AND L13
L16           8 S L15 NOT L14

     FILE 'REGISTRY' ENTERED AT 17:16:58 ON 30 DEC 2008


=> D L8 QUE STAT
L1             STR
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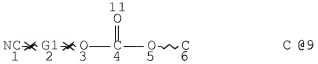

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STEREO ATTRIBUTES: NONE
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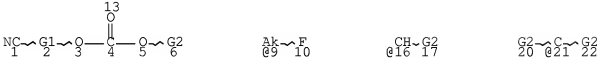

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SEARCH TIME: 00.00.01

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=> FILE HCA
FILE 'HCA' ENTERED AT 17:17:16 ON 30 DEC 2008
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=> D L14 1 BIB ABS HITSTR HITIND RE

L14  ANSWER 1 OF 1  HCA  COPYRIGHT 2008 ACS on STN
AN   143:29529  HCA  Full-text
TI   Nonaqueous electrolytes having an extended temperature
     range for battery applications
IN   Sun, Luying
PA   USA
SO   U.S. Pat. Appl. Publ., 17 pp.
     CODEN: USXXCO
DT   Patent
LA   English
FAN.CNT 1
     PATENT NO.          KIND   DATE        APPLICATION NO.        DATE
     ---------------     ----   --------    --------------------   ------
     --------
PI   US 20050123835       A1    20050609    US 2003-731268
                                                                    200312
                                                                    09
PRAI US 2003-731268              20031209
OS   MARPAT 143:29529
AB    The present invention discloses non-aq. electrolytes having an
      extended temp. range for battery applications. The electrolyte
      comprises an electrolyte salt, e.g., LiPF6, a first non-aq. solvent,
      and a second non-aq. solvent. The electrolyte of the present
      invention has higher ionic cond., lower f.p., and lower vapor
      pressure at high temp. than com. electrolytes.  These non-aq.
      electrolytes can be used, for example, in lithium-ion batteries.
      Methods of making lithium-ion batteries are also described.
IT   18804-04-1, uses 852995-04-1
        (nonaq. electrolytes having extended temp. range for
        battery applications)
RN   18804-04-1  HCA
CN   Carbonic acid, 1-cyano-1-methylethyl methyl ester (9CI)  (CA INDEX
     NAME)
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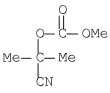
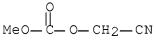


RN 852995-04-1 HCA
CN Carbonic acid, cyanomethyl methyl ester (CA INDEX NAME)



IC ICM H01M010-40
ICS H01M004-52; H01M004-50; H01M004-58
INCL 429326000; 429330000; 429339000; 429231300; 429231100; 429223000; 429221000; 429224000; 429231800
CC 52-2 (Electrochemical, Radiational, and Thermal Energy Technology)
Section cross-reference(s): 72, 76
ST battery nonaq electrolyte extended temp range
IT Electrochromic devices
Sensors
(electrolyte; nonaq. electrolytes having extended temp. range for battery applications)
IT Secondary batteries
(lithium; nonaq. electrolytes having extended temp. range for battery applications)
IT Battery electrolytes
Electrolytic capacitors
Fuel cell electrolytes
Ionic conductivity
(nonaq. electrolytes having extended temp. range for battery applications)
IT Carbonaceous materials (technological products)
Coke
Esters, uses
Ethers, uses
(nonaq. electrolytes having extended temp. range for battery applications)
IT Sulfonic acids, uses

(perfluoro, lithium salt; nonaq. electrolytes having extended temp. range for battery applications)

IT Perfluoro compounds
(sulfonic acids, lithium salt; nonaq. electrolytes having extended temp. range for battery applications)

IT 96-49-1, Ethylene carbonate 105-58-8, Diethyl carbonate 108-32-7, Propylene carbonate 110-67-8, 3-Methoxypropionitrile 463-79-6D, Carbonic acid, ester, cyclic 463-79-6D, Carbonic acid, ester, linear 616-38-6, Dimethyl carbonate 623-53-0, Ethyl methyl carbonate 1001-55-4, 2-Acetoxyacetonitrile 1656-48-0 1738-36-9, Methoxyacetonitrile 2141-62-0, 3-Ethoxypropionitrile 7782-42-5, Graphite, uses 7791-03-9, Lithium perchlorate 12031-65-1, Lithium nickel oxide (LiNiO2) 12057-17-9, Lithium manganese oxide (LiMn2O4) 12190-79-3, Cobalt lithium oxide (CoLiO2) 14283-07-9, Lithium tetrafluoroborate 15365-14-7, Iron lithium phosphate felipo4 18804-04-1, uses 21324-40-3, Lithium hexafluorophosphate 29935-35-1, Lithium hexafluoroarsenate 56756-91-3 62957-60-2, Ethoxyacetonitrile 90076-65-6 260362-83-2 311346-25-5, Cobalt lithium nickel oxide (Co0.1-0.9LiNi0.1-0.9O2) 852995-04-1
(nonaq. electrolytes having extended temp. range for battery applications)

=> D L16 1-8 BIB ABS HITSTR HITIND RE

L16 ANSWER 1 OF 8 HCA COPYRIGHT 2008 ACS on STN
AN 137:250309 HCA Full-text
TI Electrochemical cell having an electrode with a dicarbonate additive in the electrode active mixture
IN Gan, Hong; Takeuchi, Esther S.
PA Wilson Greatbatch Ltd., USA
SO Eur. Pat. Appl., 10 pp.
CODEN: EPXXDW
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI EP 1244159	A1	20020925	EP 2001-309358	200111 05
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
US 20020136949	A1	20020926	US 2001-813568	200103

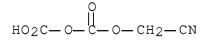
US 6586135 B2 20030701
CA 2359635 A1 20020921 CA 2001-2359635
200110
23
JP 2002313346 A 20021025 JP 2002-57141
200203
04
PRAI US 2001-813568 A 20010321

AB An electrochem. cell of either a primary or a secondary chem., is disclosed. In either case, the cell has a neg. electrode of lithium or of an anode material which is capable of intercalating and deintercalating lithium coupled with a pos. electrode of a cathode active material. A dicarbonate compd. is mixed with either the anode material or the cathode active material prior to contact with its current collector. The resulting electrode couple is activated by a nonaq. electrolyte. The electrolyte flows into and throughout the electrodes causing the dicarbonate additive to dissolve in the electrolyte. The dicarbonate solute is then able to contact the lithium to provide an elec. insulating and ionically conducting passivation layer thereon.

IT 460738-39-0
(electrochem. cell having electrode with dicarbonate additive in electrode active mixt.)

RN 460738-39-0 HCA

CN Dicarbonic acid, cyanomethyl ester (CA INDEX NAME)



IC ICM H01M004-62
ICS H01M004-02; H01M006-14; H01M004-48; H01M010-40; A61N001-378

CC 52-2 (Electrochemical, Radiational, and Thermal Energy Technology)
Section cross-reference(s): 63, 72

ST battery electrode active material dicarbonate additive

IT Battery anodes
Battery anodes
Battery cathodes
Battery electrolytes
(electrochem. cell having electrode with dicarbonate additive in electrode active mixt.)

IT Carbon black, uses

(electrochem. cell having electrode with
dicarbonate additive in electrode active mixt.)
IT Passivation
(electrochem.; electrochem. cell
having electrode with dicarbonate additive in electrode active
mixt.)
IT Medical goods
(implantable; electrochem. cell having
electrode with dicarbonate additive in electrode active mixt.)
IT Primary batteries
Secondary batteries
(lithium; electrochem. cell having electrode
with dicarbonate additive in electrode active mixt.)
IT 7439-93-2, Lithium, uses 11105-02-5, Silver vanadium oxide
12798-95-7
(electrochem. cell having electrode with
dicarbonate additive in electrode active mixt.)
IT 5944-45-6 5944-47-8 7429-90-5, Aluminum, uses 7440-02-0,
Nickel, uses 7440-32-6, Titanium, uses 7440-44-0, Carbon, uses
7782-42-5, Graphite, uses 12597-68-1, Stainless steel, uses
31139-36-3, Dibenzyl dicarbonate 115491-93-5, Diallyl dicarbonate
116977-36-7 214335-04-3, Dicarbonate 246140-06-7 246140-07-8
246140-10-3 246140-17-0 246140-18-1 246140-20-5 246140-22-7
246140-24-9 246140-26-1 316371-50-3 460738-39-0
460738-40-3
(electrochem. cell having electrode with
dicarbonate additive in electrode active mixt.)
RE
(1) Anon; PATENT ABSTRACTS OF JAPAN 1998, V1998(01)
(2) Fuji Photo Film Co Ltd; EP 0689255 A 1995 HCA
(3) Greatbatch W Ltd; EP 0951085 A 1999 HCA
(4) Greatbatch W Ltd; EP 1005098 A 2000 HCA
(5) Sony Corp; EP 0627780 A 1994 HCA
(6) Toyama Yakuhin Kogyo Kk; JP 09245831 A 1997 HCA

L16 ANSWER 2 OF 8 HCA COPYRIGHT 2008 ACS on STN
AN 134:88840 HCA Full-text
TI Dicarbonate additives for nonaqueous electrolyte
rechargeable cells
IN Gan, Hong; Takeuchi, Esther S.
PA Wilson Greatbatch Ltd., USA
SO U.S., 9 pp.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 1
PATENT NO. KIND DATE APPLICATION NO. DATE

PI	US 6174629	B1	20010116	US 1999-394316	19990910
	CA 2298301	C	20040309	CA 2000-2298301	20000208
	CA 2298301	A1	20010309		
	TW 447164	B	20010721	TW 2000-89107148	20000417
PRAI	US 1999-117107P	P	19990125		
	US 1999-394316	A	19990910		

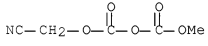
OS MARPAT 134:88840

AB A lithium ion electrochem. cell having high charge/discharge capacity, long cycle life and exhibiting a reduced first cycle irreversible capacity, is disclosed. The stated benefits are realized by the addn. of at least one dicarbonate additive to an electrolyte comprising an alkali metal salt dissolved in a solvent mixt. that includes ethylene carbonate, di-Me carbonate, ethylmethyl carbonate and di-Et carbonate. The preferred additive is an alkyl dicarbonate compd.

IT 246140-27-2
(dicarbonate additives for nonaq. electrolyte rechargeable cells)

RN 246140-27-2 HCA

CN Dicarbonic acid, cyanomethyl methyl ester (9CI) (CA INDEX NAME)



IC ICM H01M006-16

INCL 429326000

CC 52-2 (Electrochemical, Radiational, and Thermal Energy Technology)

ST battery electrolyte dicarbonate additive

IT Battery electrolytes
(dicarbonate additives for nonaq. electrolyte rechargeable cells)

IT Carbon black, uses
Carbon fibers, uses
Coke

(dicarbonate additives for nonaq. electrolyte rechargeable cells)

IT Fluoropolymers, uses
(dicarbonate additives for nonaq. electrolyte rechargeable cells)

IT Secondary batteries
(lithium; dicarbonate additives for nonaq. electrolyte rechargeable cells)

IT 96-49-1, Ethylene carbonate 105-58-8, Diethyl carbonate 556-65-0, Lithium thiocyanate 616-38-6, Dimethyl carbonate 623-53-0, Ethyl methyl carbonate 623-96-1, Dipropyl carbonate 2923-17-3 2923-20-8 7439-93-2, Lithium, uses 7782-42-5, Graphite, uses 7790-69-4, Lithium nitrate 7791-03-9, Lithium perchlorate 11113-67-0, Iron Lithium oxide 11115-95-0, Lithium niobium oxide 11126-15-1, Lithium vanadium oxide 12680-08-9, Lithium titanium sulfide 13453-75-3, Lithium fluorosulfate 14024-11-4, Lithium tetrachloroaluminate 14283-07-9, Lithium tetrafluoroborate 14485-20-2, Lithium tetraphenylborate 15955-98-3, Lithium tetrachlorogallate 18424-17-4, Lithium hexafluoroantimonate 21324-40-3, Lithium hexafluorophosphate 29935-35-1, Lithium hexafluoroarsenate 33454-82-9, Lithium triflate 35363-40-7, Ethyl propyl carbonate 37296-91-6, Lithium molybdenum oxide 37367-96-7, Lithium molybdenum sulfide 39300-70-4, Lithium nickel oxide 39302-37-9, Lithium titanium oxide 39457-42-6, Lithium manganese oxide 51177-06-1, Chromium Lithium oxide 52627-24-4, Cobalt Lithium oxide 56321-19-8, Lithium niobium sulfide 56525-42-9, Methyl propyl carbonate 61673-71-0, Lithium vanadium selenide 74245-06-0, Lithium vanadium sulfide 80341-49-7, Iron Lithium sulfide 90076-65-6 103288-79-5, Cobalt Lithium sulfide 104708-77-2, Copper Lithium oxide 115028-88-1 132404-42-3 148884-75-7, Cobalt Lithium selenide 264142-74-7, Lithium vanadium telluride 264142-75-8, Chromium Lithium sulfide 264142-78-1, Copper Lithium sulfide 264142-84-9, Lithium nickel sulfide 264142-87-2, Cobalt Lithium telluride 264142-88-3, Lithium manganese sulfide
(dicarbonate additives for nonaq. electrolyte rechargeable cells)

IT 503-81-1D, Dicarbonic acid, alkyl esters 503-81-1D, Dicarbonic acid, esters 5944-45-6 5944-47-8 31139-36-3, Dibenzyl dicarbonate 115491-93-5, Diallyl dicarbonate 116977-36-7 246140-06-7 246140-07-8 246140-10-3 246140-17-0 246140-18-1 246140-20-5 246140-22-7 246140-24-9 246140-26-1 246140-27-2 246140-29-4 316371-50-3
(dicarbonate additives for nonaq. electrolyte rechargeable cells)

IT 7440-44-0, Carbon, uses
(glassy; dicarbonate additives for nonaq. electrolyte

rechargeable cells)

RE
(1) Anon; JP 06019978 1994
(2) Anon; JP 06071853 1994 HCA
(3) Anon; JP 07149476 1995
(4) Anon; JP 07211350 1995 HCA
(5) Anon; JP 08081941 1996
(6) Anon; JP 08162153 1996 HCA
(7) Anon; JP 09245832 1997 HCA
(8) Anon; WO 9744842 1997 HCA
(9) Chaloner-Gill; US 5346787 1994 HCA
(10) Coowar; Journal of Power Sources 1998, V75, P144 HCA
(11) Coowar, F; Journal Of Power Sources 1998, V75, P144 HCA
(12) Franklin; US 4929748 1990 HCA
(13) Gan; US 5753389 1998 HCA
(14) Gan; US 6063526 2000 HCA
(15) Narang; US 5830600 1998 HCA
(16) Pies; US 5523481 1996 HCA
(17) Sugeno; US 5427874 1995
(18) Takada; US 5498495 1996 HCA
(19) Takeuchi; US 5670276 1997 HCA

L16 ANSWER 3 OF 8 HCA COPYRIGHT 2008 ACS on STN
AN 132:350275 HCA Full-text
TI Alkali metal electrochemical cell having an improved cathode activated with a nonaqueous electrolyte having a passivation inhibitor additive
IN Takeuchi, Esther S.; Leising, Randolph A.; Gan, Hong
PA Wilson Greatbatch Ltd., USA
SO Eur. Pat. Appl., 18 pp.
CODEN: EPXXDW
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI EP 1005098	A2	20000531	EP 1999-308910	19991109
EP 1005098	A3	20020410		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
US 6221534	B1	20010424	US 1998-200304	19981125
JP 2000164251	A	20000616	JP 1999-334319	

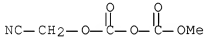
PRAI US 1998-200304 A 19981125
OS MARPAT 132:350275

AB The present invention is directed to an unexpected benefit in a lithium cell which may be derived from using a combination of silver vanadium oxide prepd. in a temp. range of 450° to 500° activated with a nonaq. electrolyte having a passivation inhibitor additive selected from a nitrite, a nitrate, a carbonate, a dicarbonate, a phosphonate, a phosphate, a sulfate and hydrogen fluoride, and mixts. thereof. The benefits may include addnl. battery life resulting from a redn. in voltage delay and RDC build-up. A preferred electrolyte is 1M LiAsF6 in a 50:50 mixt., by vol., of PC and DME having dibenzyl carbonate added therein.

IT 246140-27-2, Dicarbonic acid, cyanomethyl methyl ester (alkali metal battery having improved cathode activated with nonaq. electrolyte having passivation inhibitor additive)

RN 246140-27-2 HCA

CN Dicarbonic acid, cyanomethyl methyl ester (9CI) (CA INDEX NAME)



IC ICM H01M006-16
ICS H01M004-48

CC 52-2 (Electrochemical, Radiational, and Thermal Energy Technology)

ST battery cathode passivation inhibitor additive

IT Air
Battery cathodes
(alkali metal battery having improved cathode activated with nonaq. electrolyte having passivation inhibitor additive)

IT Transition metal chalcogenides
(alkali metal battery having improved cathode activated with nonaq. electrolyte having passivation inhibitor additive)

IT 1313-13-9, Manganese dioxide, uses 1313-99-1, Nickel oxide nio, uses 1344-70-3, Copper oxide 7439-93-2, LIthium, uses 11104-61-3, Cobalt oxide 11105-02-5, Silver vanadium oxide 11115-78-9, Copper sulfide 11126-12-8, Iron sulfide 12039-13-3, Titanium disulfide 12068-85-8, Iron disulfide 12789-09-2, Copper

vanadium oxide 181183-66-4, Copper silver vanadium oxide
(alkali metal battery having improved cathode activated with nonaq. electrolyte having passivation inhibitor additive)

IT 67-68-5, Dmso, uses 68-12-2, Dmf, uses 75-05-8, Acetonitrile, uses 79-20-9, Methyl acetate 96-48-0, γ-Butyrolactone 96-49-1, Ethylene carbonate 105-58-8 108-20-3, Diisopropyl ether 108-29-2, γ-Valerolactone 108-32-7, Propylene carbonate 109-99-9, uses 110-71-4, 1,2-Dimethoxyethane 111-96-6 112-49-2, Triglyme 127-19-5, Dimethyl acetamide 143-24-8, Tetraglyme 556-65-0, Lithium thiocyanate 616-38-6, Dimethyl carbonate 623-53-0, Ethyl methyl carbonate 623-96-1, Dipropyl carbonate 629-14-1, 1,2-Diethoxyethane 2923-17-3 2923-20-8 4437-85-8, Butylene carbonate 5137-45-1, 1-Ethoxy-2-methoxyethane 7790-69-4, Lithium nitrate 7791-03-9 13453-75-3, Lithium fluorosulfate 14024-11-4, Lithium tetrachloroaluminate 14283-07-9, Lithium tetrafluoroborate 14485-20-2, LIthium tetraphenylborate 15955-98-3, Lithium tetrachlorogallate 18424-17-4, Lithium hexafluoroantimonate 21324-40-3, Lithium hexafluorophosphate 29935-35-1, Lithium hexafluoroarsenate 30207-69-3, -Methylpyrrolidinone 33454-82-9, LIthium triflate 35363-40-7, Ethyl propyl carbonate 56525-42-9, Methyl propyl carbonate 90076-65-6 132404-42-3
(alkali metal battery having improved cathode activated with nonaq. electrolyte having passivation inhibitor additive)

IT 57-52-3, Bis(triethyltin)sulfate 64-67-5, Diethyl sulfate 77-78-1, Dimethyl sulfate 107-66-4 109-95-5, Ethyl nitrite 540-80-7, tert-Butyl nitrite 541-42-4, Isopropyl nitrite 542-56-3, Isobutyl nitrite 543-29-3, Isobutyl nitrate 543-67-9, Propyl nitrite 544-16-1, Butyl nitrite 598-02-7, Diethyl phosphate 598-05-0, Dipropyl sulfate 624-91-9, Methyl nitrite 625-22-9, Dibutyl sulfate 627-13-4, Propyl nitrate 683-08-9, Diethyl methyl phosphonate 701-64-4, Mono-phenyl phosphate 756-79-6, Dimethyl methyl phosphonate 762-04-9, Diethyl phosphonate 773-47-7, Dimethyl benzylphosphonate 812-00-0, Mono-methyl phosphate 813-78-5, Dimethyl phosphate 838-85-7, Diphenyl phosphate 868-85-9, Dimethyl phosphonate 884-90-2, Phosphoric acid, diethyl phenylmethyl ester 926-05-6, tert-Butyl nitrate 928-45-0, Butyl nitrate 935-05-7, Benzyl nitrite 1469-70-1, Allyl ethyl carbonate 1610-33-9, Ethyl methyl phosphonate 1623-06-9, Mono-propyl phosphate 1623-07-0, Benzyl phosphate 1623-08-1, Dibenzyl phosphate 1623-14-9, Mono-ethyl phosphate 1623-15-0, Mono-butyl phosphate 1707-92-2, Tribenzyl phosphate 1712-64-7, Isopropyl nitrate 1804-93-9, Dipropyl phosphate 1809-19-4, Dibutyl phosphonate 1809-21-8, Dipropyl phosphonate 2104-20-3, Phenyl nitrate 2404-73-1, Dibutyl methyl

phosphonate 2649-11-8, Didodecyl sulfate 3066-75-9, Phosphoric acid, diethyl 2-propenyl, ester 3459-92-5, Dibenzyl carbonate 4074-56-0, Diphenyl sulfate 4427-92-3, 4-Phenyl-1,3-dioxolan-2-one 4712-55-4, Diphenyl phosphonate 5944-45-6, Dicarbonic acid, methyl 2-propenyl ester 5944-47-8, Dicarbonic acid, ethyl phenylmethyl ester 6410-56-6, Dipropyl methyl phosphonate 7526-26-3, Diphenyl methyl phosphonate 7664-38-2, Phosphoric acid, uses 7748-09-6, Diallyl phosphate 7757-79-1, Potassium nitrate, uses 10124-37-5, Calcium nitrate 10377-60-3, Magnesium nitrate 10497-05-9, Tris(trimethylsilyl)phosphate 13598-36-2, Phosphorous acid, uses 15022-08-9, Diallyl carbonate 15285-42-4, Benzyl nitrate 17176-77-1, Dibenzyl phosphonate 18306-29-1, Bis(trimethylsilyl)sulfate 18495-74-4, Dibenzyl sulfate 19236-58-9, Dibenzyl methyl phosphonate 24424-99-5, Di-tert-butyl dicarbonate 27991-93-1, Sulfuric acid, Bis(4-nitrophenyl) ester, uses 28519-15-5, Phosphoric acid, dibutyl phenylmethyl ester 31139-36-3, Dibenzyl dicarbonate 32636-65-0, Phosphoric acid, diphenylmethyl diethyl ester 34207-39-1, Nitrous acid, phenyl ester 54963-39-2, Phosphonic acid, (diphenylmethyl)-, dimethyl ester 57772-64-2 59577-32-1 66065-85-8, Succinimidyl-2,2,2-trichloroethyl carbonate 66085-82-3, Dicarbonic acid, methylphenyl ester 66186-16-1, Didecyl sulfate 66735-55-5, Methyl Phenyl sulfate 72101-14-5, Phosphoric acid, Dimethyl methylphenyl ester 74124-79-1 104184-81-8, Sulfuric acid, 2-chloroethyl ethyl ester 115491-93-5, Diallyl dicarbonate 116977-36-7, Dicarbonic acid, ethyl 2-propenyl ester 246140-06-7, Dicarbonic acid, methyl phenylmethyl ester 246140-07-8, Dicarbonic acid, phenylmethyl propyl ester 246140-10-3, Dicarbonic acid, butyl phenylmethyl ester 246140-17-0, Dicarbonic acid, mono-2-propenyl ester 246140-18-1, Dicarbonic acid, 2-propenyl propyl ester 246140-20-5, Dicarbonic acid, mono-methyl ester 246140-22-7, Dicarbonic acid, mono-ethyl ester 246140-24-9, Dicarbonic acid, mono-propyl ester 246140-26-1, Dicarbonic acid, mono-butyl ester 246140-27-2, Dicarbonic acid, cyanomethyl methyl ester 246140-29-4, Dicarbonic acid, methyl nitromethyl ester 269402-58-6 269402-59-7 269402-60-0
(alkali metal battery having improved cathode activated with nonaq. electrolyte having passivation inhibitor additive)

IT 534-16-7, Silver carbonate 563-63-3, Silver acetate 1314-62-1, Vanadium pentoxide, reactions 7440-22-4, Silver, reactions 7761-88-8, Silver nitrate, reactions 7783-99-5, Silver nitrite 20667-12-3, Silver oxide ag2o
(alkali metal battery having improved cathode activated with nonaq. electrolyte having passivation inhibitor additive)

IT 7440-37-1, Argon, uses 7440-59-7, Helium, uses 7727-37-9,

Nitrogen, uses 7782-44-7, Oxygen, uses
(alkali metal battery having improved cathode activated with nonaq. electrolyte having passivation inhibitor additive)

RE

(1) Anon; EP 0478303 A2 HCA
(2) Anon; US 5516340 A HCA
(3) Anon; US 5753389 A HCA
(4) Anon; US 5766797 A HCA

L16 ANSWER 4 OF 8 HCA COPYRIGHT 2008 ACS on STN
AN 131:288847 HCA Full-text
TI Dicarbonate additives for nonaqueous electrolyte in alkali metal electrochemical cells
IN Gan, Hong; Takeuchi, Esther S.
PA Wilson Greatbatch Ltd., USA
SO Eur. Pat. Appl., 22 pp.
CODEN: EPXXDW
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 951085	A1	19991020	EP 1999-301845	19990311
	EP 951085	B1	20030129		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	US 6063526	A	20000516	US 1998-61582	19980416
	AU 9921263	A	19991028	AU 1999-21263	19990318
	AU 750554	B2	20020718		
	JP 11329498	A	19991130	JP 1999-106937	19990414
PRAI	US 1998-61582	A	19980416		

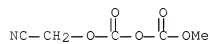
AB An alkali metal, solid cathode, nonaq. electrochem. cell capable of delivering high current pulses, rapidly recovering its open circuit voltage and having high current capacity has the additive of ≥1 dicarbonate to an electrolyte comprising an alkali metal salt dissolved in a mixt. of a low viscosity solvent and a high

permittivity solvent. A preferred solvent mixt. includes propylene carbonate, dimethoxyethane, and an alkyl dicarbonate additive.

IT 246140-27-2
(dicarbonate additives for nonaq. electrolyte in alkali metal electrochem. cells)

RN 246140-27-2 HCA

CN Dicarbonic acid, cyanomethyl methyl ester (9CI) (CA INDEX NAME)



IC ICM H01M006-16

CC 52-2 (Electrochemical, Radiational, and Thermal Energy Technology)

ST battery electrolyte carbonate additive

IT Battery electrolytes
(dicarbonate additives for nonaq. electrolyte in alkali metal electrochem. cells)

IT Primary batteries
(lithium; dicarbonate additives for nonaq. electrolyte in alkali metal electrochem. cells)

IT 556-65-0, Lithium thiocyanate 2923-17-3 2923-20-8 7791-03-9, Lithium perchlorate 13453-75-3, Lithium fluorosulfonate 14024-11-4, Lithium tetrachloroaluminate 14283-07-9, Lithium tetrafluoroborate 14485-20-2, Lithium tetraphenylborate 15955-98-3, Lithium tetrachlorogallate 18424-17-4, Lithium hexafluoroantimonate 21324-40-3, Lithium hexafluorophosphate 29935-35-1, Lithium hexafluoroarsenate 33454-82-9, Lithium triflate 90076-65-6 115028-88-1 132404-42-3
(dicarbonate additives for nonaq. electrolyte in alkali metal electrochem. cells)

IT 5944-45-6 5944-47-8, Dicarbonic acid, ethyl phenylmethyl ester 24424-99-5, Di-tert-butyl dicarbonate 31139-36-3, Dibenzyl dicarbonate 66085-82-3 115491-93-5, Diallyl dicarbonate 116977-36-7 246140-06-7 246140-07-8 246140-10-3 246140-17-0 246140-18-1 246140-20-5 246140-22-7 246140-24-9 246140-26-1 246140-27-2 246140-29-4
(dicarbonate additives for nonaq. electrolyte in alkali metal electrochem. cells)

IT 67-68-5, Dmso, uses 68-12-2, uses 75-05-8, Acetonitrile, uses 79-20-9, Methyl acetate 96-48-0 96-49-1, Ethylene carbonate 105-58-8, Diethyl carbonate 108-32-7, Propylene carbonate 109-99-9, uses 110-71-4, 1,2-Dimethoxyethane 111-96-6, Diglyme

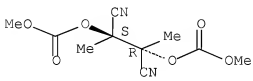
112-49-2, Triglyme 127-19-5, Dimethyl acetamide 143-24-8, Tetraglyme 616-38-6, Dimethyl carbonate 623-53-0, Ethyl methyl carbonate 623-96-1, Dipropyl carbonate 629-14-1, 1,2-Diethoxyethane 872-50-4, n-Methylpyrrolidone, uses 4437-85-8, Butylene carbonate 5137-45-1, 1-Ethoxy-2-methoxyethane 35363-40-7, Ethyl propyl carbonate 56525-42-9, Methyl propyl carbonate
(dicarbonate additives for nonaq. electrolyte in alkali metal electrochem. cells)

RE
(1) Asahi Denka Kogyo KK; JP 07282849 A 1995 HCA
(2) Coowar, F; Journal of Power Sources 1998, V75(1), P144 HCA
(3) Greatbatch W Ltd; WO 9629750 A 1996 HCA
(4) Greatbatch W Ltd; EP 0803924 A 1997 HCA
(5) Japan Storage Battery Co Ltd; JP 08138741 A 1996 HCA
(6) Otsuka Chem Co Ltd; JP 07211350 A 1995 HCA
(7) Stanford Res Inst Int; WO 9744842 A 1997 HCA
(8) Toyama Yakuhin Kogyo KK; JP 09245831 A 1997 HCA

L16 ANSWER 5 OF 8 HCA COPYRIGHT 2008 ACS on STN
AN 117:180414 HCA Full-text
OREF 117:30993a,30996a
TI Stereoselectivity of radical dimerization
AU Thomas, H. G.; Geissler, K.; Littmann, K.
CS Inst. Org. Chem., RWTH Aachen, Germany
SO DECHEMA Monographien (1992), 125(Elektrochem. Stoffgewinnung: Grundlagen Verfahrenstech.), 639-48
CODEN: DMDGAG; ISSN: 0070-315X
DT Journal
LA German
AB When radicals with unequal substituents R1, R2, R3 are dimerized to meso- and D,L-compds. the reaction cannot be directed by only 1 effect to obtain a diastereomeric excess. If one distinguishes push and pull effects in the transition state of the dimerization reaction between substituents opposed to one another, one discovers that an attracting and a repulsing effect gives D,L-compds.; 2 attracting or 2 repulsing effects lead to a meso product. Attracting effects may be caused by σ-bonds, by ion pairs or by H bonds; repulsing effects are a steric hindrance of 2 bulky groups or electrostatic repulsing of equally charged ions. This concept is applied to the thermolysis of "mercaptodative" substituted ethanes and to the reductive dimerization of arene carbaldehydes and aryl Me ketones to pinacolines.
IT 143943-06-0P 143943-07-1P
(formation of, in stereoselective electrochem. dimerization)
RN 143943-06-0 HCA
CN Carbonic acid, 1,2-dicyano-1,2-dimethyl-1,2-ethanediyl dimethyl

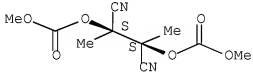
ester, (R*,S*)- (9CI) (CA INDEX NAME)

Relative stereochemistry.



RN 143943-07-1 HCA
CN Carbonic acid, 1,2-dicyano-1,2-dimethyl-1,2-ethanediyl dimethyl ester, (R*,R*)- (9CI) (CA INDEX NAME)

Relative stereochemistry.



CC 72-2 (Electrochemistry)
Section cross-reference(s): 22, 23
IT 143943-06-0P 143943-07-1P
(formation of, in stereoselective electrochem. dimerization)

L16 ANSWER 6 OF 8 HCA COPYRIGHT 2008 ACS on STN
AN 74:100330 HCA Full-text
OREF 74:16345a,16348a
TI Reactions of glucuronic acid. IV. Syntheses with alkyl chloroformates
AU Weidmann, Hans; Dax, K.; Wewerka, D.
CS Inst. Org. Chem. Org.-Chem. Technol., Tech. Hochsch. Graz, Graz, Austria
SO Monatsh. Chem. (1970), 101(6), 1831-40
CODEN: MOCHAP
DT Journal
LA German
AB Me β-D-glucuronoside 3,6-lactone (I), Me α-D-glucuronoside 3,6-lactone (II), and 1,2-o-isopropylidene α-D-glucuronoside 3,6-lactone

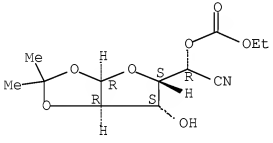
(III) were acylated at approx. the same speed with Ac2O. With ClCO2Et II gave the 2,5-bis(ethoxycarbonyl) deriv. directly, whereas I was ethoxycarbonylated much more slowly and the 5-o-ethoxycarbonyl deriv. could be directly converted to Me 2-o-methylsulfonyl-5-o-ethoxycarbonyl-β-D- glucuronoside 3,6-lactone (IV). The benzyloxycarbonyl compd. corresponding to IV could be hydrolyzed to Me 2-o-methylsulfonyl-β-D-glucuronoside 3,6-lactone. The ammonolysis rates decreased in the order II > III > I. The 2,5-bis(ethoxycarbonyl) deriv. of II could be quant. converted into its amide. The electrolytic cond. of I-III increased with time due to hydrolysis of the lactone ring and dissocn. of the acid.

IT 31505-76-7P 31505-77-8P 31610-72-7P
(prepn. of)

RN 31505-76-7 HCA

CN Glucofuranurononitrile, 1,2-O-isopropylidene-, 5-(ethyl carbonate), α-D- (8CI) (CA INDEX NAME)

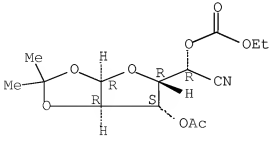
Absolute stereochemistry.



RN 31505-77-8 HCA

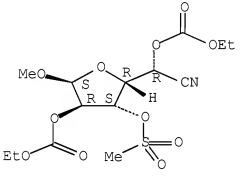
CN Glucofuranurononitrile, 1,2-O-isopropylidene-, 3-acetate 5-(ethyl carbonate), α-D- (8CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 31610-72-7 HCA
CN Glucofuranosidurononitrile, methyl, 2,5-bis(ethyl carbonate) 3-methanesulfonate, α-D- (8CI) (CA INDEX NAME)

Absolute stereochemistry.

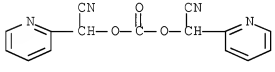


CC 33 (Carbohydrates)
ST glucurones acylations; sulfonylations glucurones; ammonolysis glucurones; electrolytic cond glucurones
IT 236-70-4DP, Furo[2',3':4,5]furo[2,3-d]-1,3-dioxole, sugar derivs. 251-24-1DP, Furo[3,2-b]furan, sugar derivs. 251-39-8DP, Furo[2,3-d]-1,3-dioxole, sugar derivs. 31505-60-9P 31505-61-0P 31505-62-1P 31505-64-3P 31505-65-4P 31505-66-5P 31505-67-6P 31505-68-7P 31505-69-8P 31505-70-1P 31505-71-2P 31505-72-3P 31505-73-4P 31505-74-5P 31505-75-6P 31505-76-7P 31505-77-8P 31505-78-9P 31505-79-0P 31610-72-7P
(prepn. of)

L16 ANSWER 7 OF 8 HCA COPYRIGHT 2008 ACS on STN
AN 65:29167 HCA Full-text
OREF 65:5374g
TI Adiponitrile
IN Knunyants, I. L.; Varshavskii, S. L.; Tomilov, A. P.; Kaabak, L. V.; Eskin, N. T.
SO From: Izobret., Prom. Obraztsy, Tovarnye Znaki 43(4), 18(1966)..
DT Patent
LA Unavailable
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

PI SU 178807 19660203 SU
196305
10
PRAI SU 19630510
AB Adiponitrile is prepd. by electrolytic redn. of acrylonitrile at room temp. in a neutral medium, followed by sepn. of the product by known techniques.
IT 13103-51-0
(Derived from data in the 7th Collective Formula Index (1962-1966))
RN 13103-51-0 HCA
CN 2-Pyridineacetonitrile, α,α'-[carbonylbis(oxy)]bis- (9CI) (CA INDEX NAME)



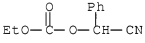
IC C07C; B01K
CC 33 (Aliphatic Compounds)
IT 13103-51-0
(Derived from data in the 7th Collective Formula Index (1962-1966))
IT 25014-41-9, Acrylonitrile, homopolymer
(redn. of, adiponitrile by electrolytic)

L16 ANSWER 8 OF 8 HCA COPYRIGHT 2008 ACS on STN
AN 53:61280 HCA Full-text
OREF 53:11058d-e
TI The electrolytic preparation of p-methoxyphenylacetonitrile
AU Wawzonek, S.; Fredrickson, J. D.
CS State Univ. of Iowa, Iowa City
SO Journal of the Electrochemical Society (1959), 106, 325-7
CODEN: JESOAN; ISSN: 0013-4651
DT Journal
LA Unavailable
AB Conditions necessary for the electrolytic prepn. of p-MeOC6H4CH2CN(I) from p-MeOC6H4CHOHCN and its esters were detd. polarographically. Polarographic reduction waves were obtained in dioxane and H2O only in the presence of NBu4I and NMe4I. p-MeOC6H4CH(OCOPh)CN(II), which was reduced at the most pos. potential, gave no reduction wave in the presence of either NH4Cl or LiCl. On the basis of the ease of

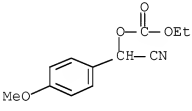
reduction and ease of prepn., II was used as the starting material in the large-scale reduction at a Hg cathode and gave I in yields averaging 65%.

IT 6443-66-9 66867-32-1
(Derived from data in the 6th Collective Formula Index (1957-1961))

RN 6443-66-9 HCA
CN Carbonic acid, cyanophenylmethyl ethyl ester (CA INDEX NAME)



RN 66867-32-1 HCA
CN Carbonic acid, cyano(4-methoxyphenyl)methyl ethyl ester (CA INDEX NAME)



CC 4 (Electrochemistry)
IT 4242-46-0 6443-66-9 6948-58-9 66867-32-1 99843-19-3
(Derived from data in the 6th Collective Formula Index (1957-1961))